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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,030	09/26/2005	Kenzo Miya	265347US2XPCT	8402
22850	7590	09/14/2007		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER NGUYEN, TRAN N	
			ART UNIT 2834	PAPER NUMBER
			NOTIFICATION DATE 09/14/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/523,030	<b>Applicant(s)</b> MIYA ET AL	
	<b>Examiner</b> Tran N. Nguyen	<b>Art Unit</b> 2834	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 July 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claim 1** is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's **Admitted Prior Art Figures 1-2 (AAPA figs 1-2)** in view of **Takahata et al (US 5,763,971)** and **Shiga et al (US 6,093,984)**.

**AAPA figs 1-2** disclose a superconductive magnetic bearing comprising a stationary bearing portion having an annular superconductor unit provided on a fixed portion, and a rotatable bearing portion having an annular permanent magnet unit with yoke therein provided on a rotary portion so as to be opposed to the superconductor unit; particularly the superconductor unit comprising a plurality of circumferentially divided superconductor bulks (6, in AAPA fig 2), the adjacent superconductor bulks (6) coming into contact with each other without a gap to constitute the superconductor unit, and the rotary portion being contactlessly supported relative to the fixed portion by the pinning effect of a superconductor constituting the superconductor unit.

AAPA Figs 1-2 substantially discloses the claimed invention except for the following limitations:

*(a) the permanent magnet unit comprises a plurality of permanent magnet members arranged in superposed layers with an insulating layer provided between each adjacent pair of magnet members, and*

*(b) the yoke comprises a plurality of yoke members made of a magnetic material and arranged in superposed layers with an insulating layer interposed between each adjacent pair of yoke members.*

Regarding the magnet unit, **Yamakoshi**, however, teaches a permanent magnet unit comprising a plurality of permanent magnet members (10, 11 in figs 1-4) being arranged in superposed layers with an insulating layer provided between for the purpose of reducing eddy currents resulting in less energy loss.

Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the AAPA figs 1-2 disclose a superconductive magnetic bearing by configuring the permanent magnet unit with laminated permanent magnet members being arranged in superposed layers with an insulating layer provided between two adjacent laminated magnet members, as taught by **Yamakoshi**. Doing so would improve the efficiency of the magnetic bearing device because laminated magnet unit would reduce eddy currents resulting in less energy loss and more efficient performance thereof.

Regarding the yoke, **Shiga** teaches a yoke (36) comprises a plurality of yoke members (40 in fig 6) made of a magnetic material, particularly steel material, and arranged in superposed layers with an insulating layer interposed between each adjacent pair of yoke members (40) for the purpose of reducing mechanical non-uniformity as well as magnetical non-uniformity in the rotatable portion, and because the yoke unit is formed by laminated magnetic yoke members (40) being insulated from one another, eddy-current loss about the magnetic flux can be prevented and accordingly, the magnetic property can be improved.

Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the AAPA figs 1-2 disclose a superconductive magnetic bearing by configuring the yoke with a plurality of magnetic yoke members being laminated in superposed layers with an insulating layer interposed between each adjacent pair of yoke members, as taught by **Shiga**.

Doing so would reduce magnetical nonuniformity, and eddy-current loss resulting in improving magnetic property and performance of the magnetic bearing.

***Communication***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tran N. Nguyen whose telephone number is 571-272-2030. The examiner can normally be reached on 7:00 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. (**Note: Use this Central Fax number 571-273-8300 for all official response.**)

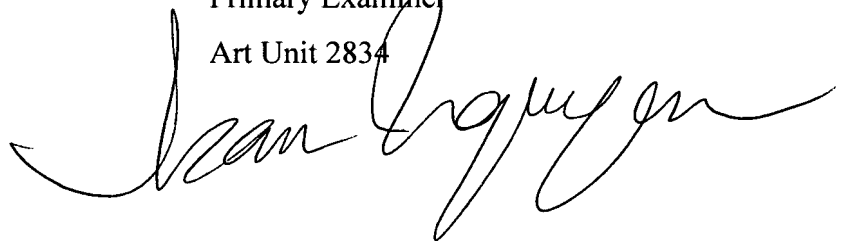
Do **not** use the Examiner's RightFax number without informing the Examiner first because, according to the USPTO policy, any document being sent via RightFax is treated as unofficial response and will not be officially dated until it is routed to the Central Fax.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tran N. Nguyen

Primary Examiner

Art Unit 2834

A handwritten signature in black ink, appearing to read 'Tran N. Nguyen', is written over the printed name and title.